

ABSTRACT

A motor according to the present invention is a motor using a rotor 5 including two first rotator portions 2, each having a permanent magnet 1, and a second rotator portion 3 having magnetic saliency inserted therebetween, coupled in a direction of a rotating shaft 4, and part of the rotor 5 is replaced with a reluctance motor, whereby an amount of the permanent magnet 1 is reduced, thus making it possible to reduce generated voltage. Further, there are provided the first rotator portion 2 on both sides of the second rotator portion 3, whereby the second rotator portion 3 is magnetically saturated through the effective use of going-round 18 of magnetic flux to raise salient ratio. Thus, reluctance torque caused in the second rotator portion 3 is increased, whereby it is possible to increase torque as a whole and to obtain a high-output motor.